

### REMARKS

This Amendment and Response are filed in reply to the Office Action dated December 4, 2003. In this Response, Applicants amend claims 1-15 and 20-22 to correct antecedent basis and form issues. Applicants also traverse the Examiner's rejections of all pending claims. Support for the amendments can be found throughout the originally filed disclosure. Amendments to the claims are not an acquiescence to any of the rejections. Applicants' silence with regard to the Examiner's rejections of dependent claims constitutes a recognition by the Applicants that the rejections are moot based on the Amendment and/or Remarks relative to the independent claim from which the dependent claims depend. Furthermore, any amendments to the claims are being made solely to expedite prosecution of the instant application. Applicants reserve the option to further prosecute the same or similar claims in the instant or a subsequent application. Upon entry of the Amendment, claims 1-22 are pending in the present application.

The issues of the December 4, 2003 Office Action are presented below with reference to the Office Action.

With regard to the Office Action, paragraphs 1-3: Applicants thank the Examiner for the reminder regarding the Duty to Disclose. In accordance therewith, Applicants supply a statement including a PTO-1449. Applicants respectfully request that the Examiner consider the cited references.

With regard to the Office Action, paragraph 4: The Examiner objected to the Drawings. Applicants provide herein a Letter to the Official Draftsperson, which includes formal drawings for Figures 1-3. Applicants thus traverse the objections to the drawings.

With regard to the Office Action, paragraph 5: The Examiner indicated that a substitute specification was not entered, and that a correction to the specification was needed on page 10. Applicants thank the Examiner for the reminder regarding page 10, and Applicants supply such missing information. Applicants also correct two other typographical errors in the specification.

With regard to the Office Action, paragraphs 6-17: In summary, the Examiner rejected claims 1-22 under 35 U.S.C. 102(b) based on Tresch et al. ("Proceedings of the 21<sup>st</sup> VLDB Conference, Zurich, Switzerland, 1995), and 35 U.S.C. 103(a) in further view of Howard (U.S. 6,336,109) or

Ishida (6,556,572). More specifically, the Examiner rejected independent claims 1, 14, 15, 21, and 22 under 35 U.S.C. 102(b) based on Tresch et al., and independent claim 20 under 35 U.S.C. 103(a) based on Tresch et al. and Ishida.

Applicants sincerely thank and appreciate the thorough examination provided by the Examiner, including citations to the references. Upon considering the Examiner's comments and the references in their totality, Applicants respectfully disagree with the Examiner's interpretation of the references as applied to the Applicants' claims.

Specifically, Applicants' independent claim 1 recites a method for retraining a trainable data classifier that includes (a) providing a first item of training data, and (b) comparing the first item of training data with a second item of training data *already used to train the data classifier* to provide a measure of conflict between the first and second items of training data.

The Examiner rejected such claim by referencing Tresch et al., specifically, at page 274, where Tresch et al. state (as also quoted by the Examiner, page 4 of present Office Action) "Given a trained classifier with centroids for each class, classification of a document *d* means finding the 'most similar' centroid *v(c)* and assigning *d* to that class," to which the Examiner likens Applicants' claimed *comparing the first item of training data with a second item of training data already used to train the data classifier*.

Applicants are unaware of any system or classifier, including the one taught by Tresch et al., in which a centroid is an item of data upon which a classifier is trained. In the present Office Action, page 4, the Examiner proposes that a comparison of a Tresch et al. document (Applicants' claimed first training data item) to a centroid(s) of a data set is the same as Applicants' claimed *second item of training data already used to train the data classifier*. A centroid is not part of a data set, nor is it an input to a classifier. It thus is not an *item of training data already used to train the data classifier*, as claimed by Applicants' independent claim 1. Because there is no teaching in Tresch et al. to indicate that any classifier is trained with the centroid, the centroid thus cannot be Applicants' claimed *second item of training data already used to train the data classifier*.

Applicants further direct the Examiner to Tresch et al.'s methodology, presented in pseudo code format at page 269:

*Step 1: train an initial classifier with No documents per class;*

*Step 2: while the classifier's performance is insufficient*

*and a user is willing to classify document do*

*Classify a document using current classifier;*

*If confidence was below a certain threshold, then*

*Classify document by user and add it to training data set;*

*If Ni training documents have been added then*

*Retraining the classifier with the new training set*

*end*

As Tresch et al. teach, the confidence referred to in the aforementioned algorithm is based on the classifier's performance in classifying a document, whereupon the centroid for the class to which the document is classified, is compared to the document to obtain a measure. The centroid is not an *item of training data already used to train the data classifier*, as claimed by Applicants, because Tresch et al. teach that document features (e.g., words obtained by scanning the documents) are used to train the classifier (See Tresch et al., pages 269-272, or section 4). Centroids are thus not used to train the Tresch et al. classifier, there is not any teaching to indicate that Tresch et al.'s centroids are used to train any classifier, and thus, the Tresch et al. centroids cannot be Applicants' claimed *item of training data already used to train the data classifier*.

At least because there is no teaching in Tresch et al. to teach the features of Applicants' independent claim 1 that include (a) providing a first item of training data, and (b) comparing the first item of training data with a second item of training data *already used to train the data classifier*, Applicants traverse the Examiner's 35 U.S.C. 102(a) rejection of Applicants' independent claim 1, and consider independent claim to be allowable. Applicants further note that because Tresch et al. do not teach the aforementioned claimed comparison, Tresch et al. also cannot teach Applicants' claimed *measure of conflict between the first and second items of training data, and using the first item of training data to retrain the data classifier responsive to the measure of conflict*. Because claims 2-13 depend from allowable independent claim 1,

Applicants consider claims 2-13 to also be allowable for depending from an allowable base claim.

Applicants' independent claims 14, 15, 20, 21, and 22 already include and/or are amended to include the same allowable features as provided in Applicants' independent claim 1, and thus, Applicants also traverse the Examiner's rejections of independent claims 14, 15, 20, 21, and 22 for the same reasons as provided with respect to independent claim 1, and also, claims 16-19 which depend therefrom. Applicants thus consider independent claims 14, 15, 20, 21, and 22 to be allowable, and also, claims 16-19 which depend therefrom.

Applicants thus traverse the Examiner's rejections of all pending claims 1-22, and consider all of claims 1-22 to be allowable.

CONCLUSION

Applicants consider the Response herein to be fully responsive to the referenced Office Action. Based on the above Remarks, it is respectfully submitted that this application is in condition for allowance. Accordingly, allowance is requested. If there are any remaining issues or the Examiner believes that a telephone conversation with Applicants' attorney would be helpful in expediting the prosecution of this application, the Examiner is invited to call the undersigned at 617-832-1241.

Respectfully submitted,

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